

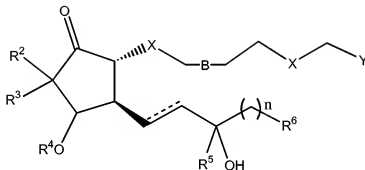
Amendments To The Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

5 **Listing of Claims:**

1. (Withdrawn) A method of treating ocular hypertension or glaucoma which comprises administering to an animal having ocular hypertension or glaucoma a therapeutically effective amount of a compound represented by the general Formula I:

10

**Formula I**

15 wherein the dashed lines indicate the presence or absence of a bond, the hatched wedges indicate the α (down) configuration, and the solid triangles indicate the β (up) configuration;

B is a single, double, or triple covalent bond;

n is 0-6;

20 X is CH₂, S or O;

Y is CONHCH₂CH₂OH or CON(CH₂CH₂OH)₂,

R² and R³ are C₁₋₆ linear alkyl which may be the same or different, and may be bonded to each other such that they form a ring incorporating the carbon to which they are commonly attached;

R⁴ is hydrogen, R, C(=O)R, or any group that is easily removed under physiological conditions such that R⁴ is effectively hydrogen;

R is H, C₁₋₆ alkyl or C₂₋₆ alkenyl;

R⁵ is hydrogen or R; and

5 R⁶ is

- i) hydrogen;
- ii) a linear or branched hydrocarbon containing between 1 and 8 carbon atoms, which may contain one or more double or triple bonds, or oxygen or halogen derivatives of said hydrocarbon, wherein 1-3 carbon or hydrogen atoms may be substituted by O or a halogen; or
- 10 iii) aryloxy, heteroaryloxy, C₃₋₈ cycloalkyloxy, C₃₋₈ cycloalkyl, C₆₋₁₀ aryl or C₃₋₁₀ heteroaryl, wherein one or more carbons is substituted with N, O, or S; and which may contain one or more substituents selected from the group consisting of halogen, trihalomethyl, cyano, nitro, amino, hydroxy, C₆₋₁₀ aryl, C₃₋₁₀ heteroaryl,
- 15 aryloxy, heteroaryloxy, C₁₋₆ alkyl, OR, SR, and SO₂R.

2. (Withdrawn) A method of treating ocular hypertension or glaucoma which comprises administering to an animal having ocular hypertension or glaucoma a therapeutically effective amount of a compound selected from the group consisting of (3-{{(1*R*,4*S*,5*S*)-5-(3-chloro-benzo[b]thiophen-2-yl)-3-hydroxy-pent-1-enyl}-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentylsulfanyl}-propylsulfanyl)-acetic acid methyl ester (**21**, **22**);
- (3-{{(1*R*,4*S*,5*S*)-5-(3-chloro-benzo[b]thiophen-2-yl)-3-hydroxy-pent-1-enyl}-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentylsulfanyl}-propylsulfanyl)-acetic acid (**23**, **24**);
- (*Z*)-7-{{(1*R*,4*S*,5*R*)-5-[(*E*)-5-(3-chloro-benzo[b]thiophene-2-yl)-3-hydroxy-pent-1-enyl]-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl}-hept-5-ynoic acid methyl ester (**34**, **35**);
- 25 (*Z*)-7-{{(1*R*,4*S*,5*R*)-5-[(*E*)-5-(3-chloro-benzo[b]thiophene-2-yl)-3-hydroxy-pent-1-enyl]-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl}-hept-5-ynoic acid (**36**,**37**);
- (*Z*)-7-{{(1*R*,4*S*,5*R*)-5-[(*E*)-5-(3-chloro-benzo[b]thiophene-2-yl)-3-hydroxy-pent-1-enyl]-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl}-hept-5-enoic acid methyl ester (**38**,**39**);

(Z)-7-[(1*R*,4*S*,5*R*)-5-[(*E*)-5-(3-chloro-benzo[*b*]thiophen-2-yl)-3-hydroxy-pent-1-enyl]-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid (**40,41**);

(Z)-7-[(1*R*,4*S*,5*R*)-4-Hydroxy-5-[(*E*)-3-hydroxy-5-phenyl-pent-1-enyl]-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid methyl ester (**50,51**)

- 5 (Z)-7-[(1*R*,4*S*,5*R*)-4-Hydroxy-5-[(*E*)-3-hydroxy-5-phenyl-pent-1-enyl]-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid (**52,53**)

(Z)-7-[(1*R*,4*S*,5*R*)-5-[(*E*)-4-Benzo[*b*]thiophen-2-yl-3-hydroxy-but-1-enyl]-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid (**54,55**)

- 7-[(1*R*,4*S*,5*R*)-5-[(*E*)-4-Benzo[*b*]thiophen-2-yl-3-hydroxy-but-1-enyl]-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-heptanoic acid (**56,57**)

(Z)-7-[(1*R*,4*S*,5*R*)-5-(4-Benzo[*b*]thiophen-2-yl-3-hydroxy-butyl)-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid (**58,59**)

(Z)-7-[(1*R*,4*S*,5*R*)-5-[(*E*)-4-Benzo[*b*]thiophen-2-yl-3-hydroxy-but-1-enyl]-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid ethylamide (**60,61**)

- 15 (Z)-7-[(1*R*,4*S*,5*R*)-5-[(*E*)-4-Benzo[*b*]thiophen-2-yl-3-hydroxy-but-1-enyl]-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid diethylamide (**62,63**)

(Z)-7-[(1*R*,4*S*,5*R*)-5-[(*E*)-4-Benzo[*b*]thiophen-2-yl-3-hydroxy-but-1-enyl]-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid (2-hydroxy-ethyl)-amide (**64,65**)

- 20 (3*S*,4*R*,5*R*)-4-[(*E*)-4-Benzo[*b*]thiophen-2-yl-3-hydroxy-but-1-enyl]-3-hydroxy-2,2-dimethyl-5-[(Z)-6-(1-*H*-tetrazol-5-yl)-hex-2-enyl]-cyclopentanone (**66,67**) (Z)-7-

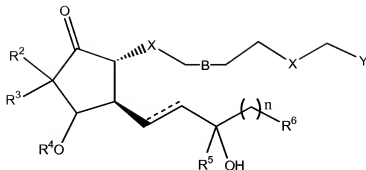
[(1*R*,4*S*,5*R*)-5-[(*E*)-4-Benzo[*b*]thiophen-2-yl-3-hydroxy-but-1-enyl]-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid amide (**68,69**)

(Z)-7-[(1*R*,4*S*,5*R*)-5-[(*E*)-4-Benzo[*b*]thiophen-2-yl-3-hydroxy-but-1-enyl]-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid methyl ester (**70,71**)

- 25 7-[(1*R*,4*S*,5*R*)-5-[(*E*)-4-Benzo[*b*]thiophen-2-yl-3-hydroxy-but-1-enyl]-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-ynoic acid methyl ester (**72,73**)

7-[(1*R*,4*S*,5*R*)-5-[(*E*)-4-Benzo[*b*]thiophen-2-yl-3-hydroxy-but-1-enyl]-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-ynoic acid (**74,75**).

3. (Original) A compound represented by Formula 1:

**Formula I**

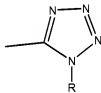
wherein the dashed lines indicate the presence or absence of a bond, the hatched wedges indicate the α (down) configuration, and the solid triangles indicate the β (up) configuration;

B is a single, double, or triple covalent bond;

n is 0-6;

X is CH₂, S or O;

- 10 Y is any pharmaceutically acceptable salt of CO₂H, or CO₂R, CONR₂, CONHCH₂CH₂OH, CON(CH₂CH₂OH)₂, CH₂OR, P(O)(OR)₂, CONRSO₂R, SONR₂, or



R is H, C₁₋₆ alkyl or C₂₋₆ alkenyl;

R² and R³ are C₁₋₆ linear alkyl which may be the same or different, and may be bonded to each other such that they form a ring incorporating the carbon to which they are commonly attached;

R⁴ is hydrogen, R, C(=O)R, or any group that is easily removed under physiological conditions such that R⁴ is effectively hydrogen;

R⁵ is hydrogen or R;

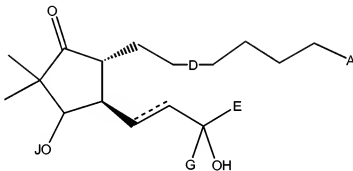
- 20 R⁶ is

i) hydrogen;

ii) a linear or branched hydrocarbon containing between 1 and 8 carbon atoms, which may contain one or more double or triple bonds, or oxygen or halogen derivatives of said hydrocarbon, wherein 1-3 carbon or hydrogen atoms may be substituted by O or a halogen; or

5 iii) aryloxy, heteroaryloxy, C₃₋₈ cycloalkyloxy, C₃₋₈ cycloalkyl, C₆₋₁₀ aryl or C₃₋₁₀ heteroaryl, wherein one or more carbons is substituted with N, O, or S; and which may contain one or more substituents selected from the group consisting of halogen, trihalomethyl, cyano, nitro, amino, hydroxy, C₆₋₁₀ aryl, C₃₋₁₀ heteroaryl, aryloxy, heteroaryloxy, C₁₋₆ alkyl, OR, SR, and SO₂R; and

10 the compound of Formula I is not a compound of Formula II



Formula II

wherein A is CO₂H, CO₂Me, or CO₂Et;

D is a single, double, or triple covalent bond;

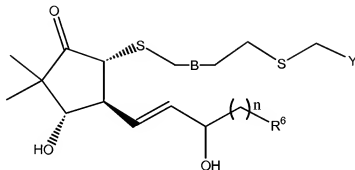
15 E is a linear, branched, or cycloalkyl chain of 3 to 7 carbons, trifluoromethylbutyl, hydroxylalkyl, or CH₂R⁷ wherein R⁷ is phenyl, cyclopentyl, phenoxy, chlorophenoxy, propoxy, or -CH₂SCH₂CH₃;

J is hydrogen, R, C(=O)R, or any group that is easily removed under physiological conditions such that R⁴ is effectively hydrogen; and

20 G is H or CH₃.

4. (Previously Amended) The compound of claim 3 wherein A is CO₂R⁸, wherein R⁸ is any linear, branched, or cyclic alkyl group having from 3 to 6 carbons.

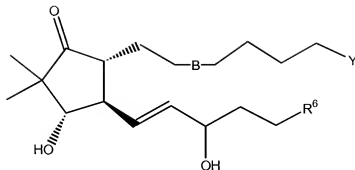
5. (Currently Amended) The compound of claim 3 which is further represented by Formula III



Formula III

wherein Y is CO₂R, or any pharmaceutically acceptable salt of CO₂H.

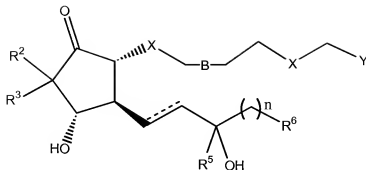
6. (Previously Amended) The compound of claim 5 wherein R⁶ is C₆₋₁₀ aryl or C₃₋₁₀ heteroaryl, wherein one or more carbons is substituted with N, O, or S; and which may contain one or more substituents selected from the group consisting of halogen, trihalomethyl, cyano, nitro, amino, hydroxy, C₁₋₆ alkyl, OR, SR, and SO₂R.
7. (Previously Amended) The compound of claim 6 wherein R⁶ is naphthyl, benzofuranyl, or benzothienyl, which may contain one or more substituents selected from the group consisting of halogen, trihalomethyl, cyano, nitro, amino, hydroxy, C₁₋₆ alkyl, OR, SR, and SO₂R.
8. (Previously Amended) The compound of claim 7 wherein Y is CO₂H or CO₂Me.
9. (Previously Amended) The compound of claim 8 where R⁶ is 3-chlorobenzothien-2-yl.
10. (Previously Amended) The compound of claim 9 where n is 2.
11. (Previously Amended) The compound of claim 10 where B is a single bond.
12. (Previously Amended) The compound of claim 3 which is further represented by Formula IV

**Formula IV**

wherein Y is CO₂R or any pharmaceutically acceptable salt of CO₂H; and

R⁶ is C₆₋₁₀ aryl or C₃₋₁₀ heteroaryl, wherein one or more carbons is substituted with N, O, or S; and which may contain one or more substituents selected from the group consisting

- 5 of halogen, trihalomethyl, cyano, nitro, amino, hydroxy, C₁₋₆ alkyl, OR, SR, and SO₂R.
13. (Previously Amended) The compound of claim 12 wherein Y is CO₂H or CO₂Me.
14. (Previously Amended) The compound of claim 13 wherein R⁶ is phenyl.
15. (Previously Amended) The compound of claim 14 wherein B is a double bond.
16. (Previously Amended) The compound of claim 13 wherein R⁶ is naphthyl,
- 10 benzofuranyl, or benzothieryl, which may contain one or more substituents selected from the group consisting of halogen, trihalomethyl, cyano, nitro, amino, hydroxy, C₁₋₆ alkyl, OR, SR, and SO₂R.
17. (Previously Amended) The compound of claim 16 wherein R⁶ is 3-chlorobenzothien-2-yl.
- 15 18. (Previously Amended) The compound of claim 17 wherein B is a double or triple bond.
19. (Previously Amended) The compound of claim 3 which is further represented by Formula V

**Formula V**

wherein at least one of R^2 and R^3 is not methyl.

20. (Previously Amended) The compound of claim 19 wherein R^2 and R^3 have a total number of carbon atoms of 6 or less.

5 21. (Previously Amended) The compound of claim 20 wherein R^5 is hydrogen.

22. (Previously Amended) The compound of claim 3 wherein said compound is selected from the group consisting of

(3- $\{(1R,4S,5S)$ -5-(3-chloro-benzo[b]thiophen-2-yl)-3-hydroxy-pent-1-enyl]-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentylsulfanyl}-propylsulfanyl)-acetic acid methyl ester (**21**,

10 **22**);

(3- $\{(1R,4S,5S)$ -5-(3-chloro-benzo[b]thiophen-2-yl)-3-hydroxy-pent-1-enyl]-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentylsulfanyl)-propylsulfanyl)-acetic acid (**23, 24**);

(Z)-7- $\{(1R,4S,5R)$ -5-[(E)-5-(3-chloro-benzo[b]thiophene-2-yl)-3-hydroxy-pent-1-enyl]-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl}-hept-5-ynoic acid methyl ester (**34, 35**);

15 (Z)-7- $\{(1R,4S,5R)$ -5-[(E)-5-(3-chloro-benzo[b]thiophene-2-yl)-3-hydroxy-pent-1-enyl]-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl}-hept-5-ynoic acid (**36,37**);

(Z)-7- $\{(1R,4S,5R)$ -5-[(E)-5-(3-chloro-benzo[b]thiophene-2-yl)-3-hydroxy-pent-1-enyl]-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl}-hept-5-enoic acid methyl ester (**38,39**);

(Z)-7- $\{(1R,4S,5R)$ -5-[(E)-5-(3-chloro-benzo[b]thiophene-2-yl)-3-hydroxy-pent-1-enyl]-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl}-hept-5-enoic acid (**40,41**);

20 (Z)-7-[($1R,4S,5R$)-4-Hydroxy-5-((E)-3-hydroxy-5-phenyl-pent-1-enyl)-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid methyl ester (**50,51**)

(Z)-7-[(1R,4S,5R)-4-Hydroxy-5-((E)-3-hydroxy-5-phenyl-pent-1-enyl)-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid (**52,53**)

(Z)-7-[(1R,4S,5R)-5-((E)-4-Benzo[b]thiophen-2-yl-3-hydroxy-but-1-enyl)-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid (**54,55**)

- 5 7-[(1R,4S,5R)-5-((E)-4-Benzo[b]thiophen-2-yl-3-hydroxy-but-1-enyl)-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-heptanoic acid (**56,57**)

(Z)-7-[(1R,4S,5R)-5-(4-Benzo[b]thiophen-2-yl-3-hydroxy-butyl)-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid (**58,59**)

- 10 (Z)-7-[(1R,4S,5R)-5-((E)-4-Benzo[b]thiophen-2-yl-3-hydroxy-but-1-enyl)-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid ethylamide (**60,61**)

(Z)-7-[(1R,4S,5R)-5-((E)-4-Benzo[b]thiophen-2-yl-3-hydroxy-but-1-enyl)-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid diethylamide (**62,63**)

(Z)-7-[(1R,4S,5R)-5-((E)-4-Benzo[b]thiophen-2-yl-3-hydroxy-but-1-enyl)-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid (2-hydroxy-ethyl)-amide (**64,65**)

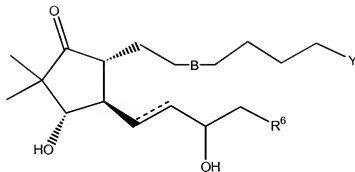
- 15 (3S,4R,5R)-4-((E)-4-Benzo[b]thiophen-2-yl-3-hydroxy-but-1-enyl)-3-hydroxy-2,2-dimethyl-5-[(Z)-6-(1-H-tetrazol-5-yl)-hex-2-enyl]-cyclopentanone (**66,67**) (Z)-7-[(1R,4S,5R)-5-((E)-4-Benzo[b]thiophen-2-yl-3-hydroxy-but-1-enyl)-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid amide (**68,69**)

- 20 (Z)-7-[(1R,4S,5R)-5-((E)-4-Benzo[b]thiophen-2-yl-3-hydroxy-but-1-enyl)-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-enoic acid methyl ester (**70,71**)

7-[(1R,4S,5R)-5-((E)-4-Benzo[b]thiophen-2-yl-3-hydroxy-but-1-enyl)-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-ynoic acid methyl ester (**72,73**)

7-[(1R,4S,5R)-5-((E)-4-Benzo[b]thiophen-2-yl-3-hydroxy-but-1-enyl)-4-hydroxy-3,3-dimethyl-2-oxo-cyclopentyl]-hept-5-ynoic acid (**74,75**).

- 25 23. (Previously Amended) The compound of claim 3 which is further represented by Formula XIII

**Formula XIII**

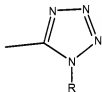
wherein B represents a single or double bond;

and R^6 is naphthyl, benzofuranyl, or benzothieryl, which may contain one or more substituents selected from the group consisting of halogen, trihalomethyl, cyano, nitro,

5 amino, hydroxy, C_{1-6} alkyl, OR, SR, and SO_2R .

24. (Previously Amended) The compound of claim 23 wherein R^6 is benzothien-2-yl.

25. (Previously Amended) The compound of claim 24 wherein Y is any pharmaceutically acceptable salt of CO_2H , or CO_2R , $CONR_2$, $CONHCH_2CH_2OH$, $CON(CH_2CH_2OH)_2$, or



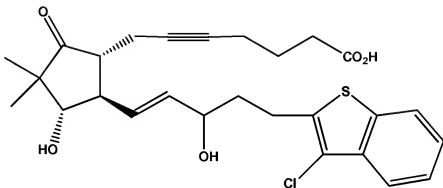
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26. (Previously Amended) The compound of claim 25 wherein the dashed line indicates the presence of a bond and B is a double bond.

27. (Previously Amended) The compound of claim 25 wherein the dashed line indicates the presence of a bond and B is a single bond.

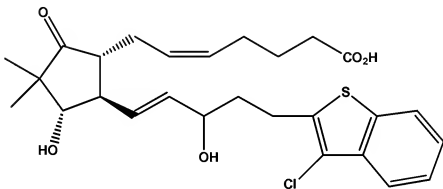
15 28. (Previously Amended) The compound of claim 25 wherein the dashed line indicates the absence of a bond and B is a double bond.

29. (Previously Presented) The compound of claim 23 comprising



or a pharmaceutically acceptable salt or a prodrug thereof.

30. (Previously Presented) The compound of claim 23 comprising



5 or a pharmaceutically acceptable salt or a prodrug thereof.